

CLAIMS

1. A surface treatment method for treating a surface
of a metal material by heating said metal material, said
5 surface treatment method comprising:

removing a passive film by heating said metal material
in a place in which amino resin is present.

2. The surface treatment method according to claim 1,
10 wherein said amino resin is applied to said surface of said
metal material to heat said metal material.

3. The surface treatment method according to claim 2,
wherein said amino resin is applied to said surface of said
15 metal material by a solvent.

4. The surface treatment method according to claim 1,
wherein said amino resin is placed in a heat treatment
furnace together with said metal material to heat said metal
20 material.

5. The surface treatment method according to any one
of claims 1 to 4, wherein melamine resin, urea resin,
aniline resin, or formalin resin is used as said amino
25 resin.

6. The surface treatment method according to any one

of claims 1 to 5, wherein said surface of said metal material is modified by forming a hardened layer or a compound layer on said surface of said metal material subsequently to heating said metal material.

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7. The surface treatment method according to any one of claims 1 to 5, wherein said surface of said metal material is modified by forming a hardened layer or a compound layer on said surface of said metal material while heating said metal material.

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8. The surface treatment method according to claim 6 or 7, wherein nitriding or carburizing is performed.